LONG ISLAND BOTANICAL SOCIETY NEWSLETTER

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The Native White Pine Forest on Long Island's South Fork

White pines and pitch pines are holding their own throughout most of Northwest in the Township of East Hampton. The easiest way to see this is to count the number of seedling and sapling pines coming up. While there are a great number of pitch pine seedlings, and far fewer pitch pine saplings, there are a ton of little white pines coming along. In fact, there are so many young white pines rising up here and there that fairly large expanses of woods look like Christmas-tree farms.

Scott Clark, a horticulturist from Suffolk County Cornell Cooperative Extension, recently accompanied the writer on his little foray. Scott was surprised to find out that these white pines did not have a plantation origin but were native to the area.

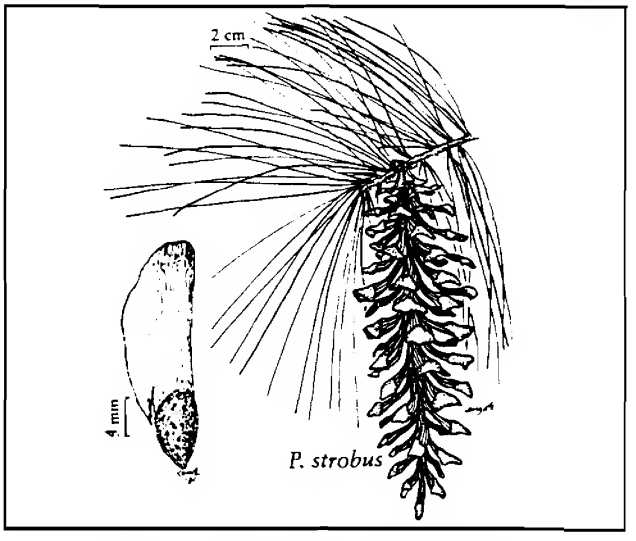
The writer was pleased to see the white pine forest surging ahead, expanding its perimeter and filling in its interior, rather than struggling in the throes of contraction and loss of vigor.

Nowhere else on Long Island does native white pine grow in abundance except in a relatively narrow, north-south band, with Northwest the anchor at the south end and Moore's Woods in Greenport holding down the north end. The white pines in this belt, including those on Shelter Island (but none on North Haven, interestingly), are most prominent in areas where water tables are shallow. Such is the situation throughout much of Northwest north of the moraine.

Along Swamp Road and the peripheries of Northwest Creek and part of Little Northwest Creek, for example, water tables are exceedingly close to the surface and white pine growth is vigorous. Interestingly, pitch pines in the same situation also seem to be doing well. The species that are losing out to some degree are the oaks, hickories, and other hardwoods.

The majority of young white pines now thriving along Old Northwest, Northwest Landing, Northwest, and Swamp Roads are three or four years old. The suggestion is that they got their initial impetus during the intensely droughty years of 1993-95, germinating in response to aridity, which can mimic postwildfire conditions.

When the rains came in the fall of 1995 that finally broke the drought, there was a second surge of activity, manifested in rapid growth and abundant



White Pine (*Pinus strobus*). Illustration from Flora of North America, Vol. 2 (1993), Oxford Univ. Press.

Highlights

Native White Pine, con't. from page 21

needle production. This phase is the one we see so plainly today. Growth is particularly rampant in the areas with greatly elevated water tables. Local water tables have seldom been higher than they are today, and consequently there is a likely hydrogeological basis for the most recent spasm of white pine growth.

The white pine forest is thought to be a relic from earlier times, hundreds, even thousands of years ago, when the climate of Long Island was cooler than it is now and native hemlocks, spruce, white cedar, and other northern trees were resident and still dominant.

By all reports, the climate at this latitude continues to ameliorate. So why are the white pines expanding, rather than contracting? The more southern pitch pines should be replacing them. It may be that the water table plays an important role in keeping them around and in prime condition.

Groundwater in the warmer months is much cooler, on average, than surface water and the air temperature. When the white pines take up water from the water table in the summer, they are sucking up water that is cool, somewhere between 50 degrees and 60 degrees Fahrenheit. When they transpire water from their needles during photosynthesis and the water evaporates, the temperature of the microclimate around the tree is lowered, and the trees are further cooled. During mild winters such as the one we've just been through, some photosynthesis goes on and the groundwater is warm enough, relative to the ambient air, to help promote that photosynthesis and even promote a little growth.

In a way, then, the white pine forest is self-regulating and always adjusting to the climate, at once trying to stay cool, at once trying to stay productive. Another side to this coin is that in looking after themselves, the white pines also look after the things that are growing under them, on them, and around them. They continually drop their needles and keep the forest floor to their liking. Shrubs such as inkberry holly and dangleberry, and groundcovers like redberry wintergreen, which may not do well away from the white pines, do wonderfully in their presence.

Meanwhile, the pitch pines are not abiding in the wings. They are forever crowding their cooler-weather cousins, always poised for the opportunity to move in and displace them. For the moment, they are thwarted. The prevailing climate has to warm up more and become drier before they can move in lock, stock, and barrel, and take over. It may never happen.

The indigenous white pine is an elegant tree, almost a perfect tree some would say, on the verge of being a miraculous tree. Yet in the eyes of local law, the native white pine has little standing, and is afforded little protection per se.

Ironically, while holding the pitch pines at bay so successfully all of these years, the white pines may finally succumb not to climatic forces, but to a force which can be far more threatening and quicker to act. We're talking about the destructive force of the biped known in anthropological circles as *Homo sapiens*.

Not all humans are that wise.

Larry Penny, East Hampton

White pine in New Hampshire. This "Lone Pine," one of the famous landmarks of the Androscoggin Valley, disappeared in July, 1956, victim of persons unknown. (U.S. Forest Service photo by Lee Prater).

Long Island's "Redwood Forest"

In Yaphank, a few acres of white pines, called Prosser Pines, tower over the surrounding oak woodland. They are toothpicks compared to the redwoods. However, they imitate the redwood style- they hover with long, straight trunks, some with considerable girth.

Planted in 1812 by George Prosser, they have grown up together with grace and style to claim the forest floor almost completely.

I took a January stroll through this Suffolk County park. A thirty second period was all I needed to walk from the parking lot before I was immersed in the dark, vertical world of *Pinus strobus*. Long Island forests were largely cut over in the 1800's. George Prosser's probable motivation in creating the plantation was to "patch things up." White pines grow rapidly and within his lifetime he could see the fruits of his labor.

The diameter of the largest of the "progenitor trees" exceeds 40 inches. Some have been growing for 184 years and counting. The largest trees are in the northwest corner of the pine grove. The soil is rich and the water table relatively close to the surface. This park is situated in the Carmans River drainage system. Just south of here the tall oaks of Warbler Woods confirm these growing conditions.

The original pine trees have spawned seedlings which are only successful in the pools of light created by canopy openings of fallen giants. The litter layer on the forest floor has three major components: cones, needles, and squaw wood. This rather barren and simplified litter layer adds charm to the setting. Patches of afternoon light whitewash the bark of some trees. This dappled effect plus the stillness and relative quiet creates a mood unlike any other forest grove I know of on Long Island.

In clearings, some of the saplings catch sunlight, causing the needled bunches to look like miniature fountains. On one trail I found two trees that had bow-shaped trunks over their entire length. This forest caught heavy winds during the '38 or '45 Hurricane. Perhaps these two trees sustained partial upheaval from the tornadoes that spin off from hurricanes passing over land masses.

My favorite place in this forest is at a southernmost point on the trail. A tall, hollow seven foot tall stump has three knotholes pointing in three different directions, each hole giving a different view. I stood inside this stump and peeked out of each hole. It's as close as I've ever come to being a White Pine Tree.

The north side of the plantation is bounded by oak forest. Here is a nursery of hundreds of young trees all competing for light. Seeds that have been blown north find enough available light to germinate. Few will ever reach the height of their parent trees to the south. The competition for light is fierce. I saw saplings growing within just a few feet of each other.

I got the impression that this forest family is a close-knit clan that was started in 1812 and will go on indefinitely. A few black birches have integrated within the forest but even mature trees look puny compared to the grandfather white pine trees.

Yes, Muir Woods in California is much more magnificent, but Prosser Pines is here, close enough to visit after work. The plantation reminds me of a statement Donald Culross Peattie made in his book, The Road of a Naturalist: "You draw to a stop, shut off the motor like a profanity, and get out, to go into the wood and worship." If these trees draw you closer to God, I recommend you go there. Indeed, a stand of white pines close by is called Cathedral Pines for obvious reasons. These trees probably came from seeds blown there from the Prosser stand.

It is the enclosure, dimness of light, and hushed atmosphere that draws me to this wood. One reason for this hushed atmosphere is the thickness of the litter layer. In some places, pine needles are ten inches thick. This creates absorption that influences the quality of sound. It uplifts and sustains the human spirit. A brief visit to Prosser Pines would better be termed a pilgrimage. Indeed, wherever we live, we need to look to nature to find a place to go for inspiration and the upwelling of the life force within us that relates us to the whole planet.

Thomas Allen Stock, Smithtown

Society News

Rare Plant Victorious Over Development

St. Andrew's Cross (*Hypericum hypericoides* subsp. *multicaule*) is among New York's most rare plant species. This southern species is at the northern limit of its range on Long Island, where a population thrives in the Township of Huntington. Recently, a developer submitted a proposal to the Town to build a major subdivision on the property. Fortunately, environmentally sensitive individuals in the town's planning department were aware of the occurrence of St. Andrew's Cross on the property and ultimately protected the population by accepting 1.123 acres from the developer as a "park preserve."

Margo Myles of the planning board (and also a LIBS member) noted, "As far as I am aware, this is the first time that the town has actually required the dedication of an area as part of a subdivision because of a rare plant occurrence." According to the resolution, the town's Department of Parks and Recreation, General Services, and Environmental Control have been informed that the 1+ acre parcel is within their management jurisdiction, and have been directed to properly monitor and manage the site, including annual mowing in September or October of each year.

DEC Still Recommends Non-Native Trees & Shrubs for Long Island Shore Plantings

Once again this spring the New York State Department of Environmental Conservation (DEC) offered for sale tree and shrub seedlings to New York landowners. Two packages had been specifically geared toward Long Island shore planting. The tree seedling package of 80 plants contained two native species (eastern red cedar and northern bayberry) and two non-native species (autumn olive and rugosa rose). The shrub seedling package of 25 plants included two native species (high bush cranberry and silky dogwood) and three non-native species (tartarian honeysuckle, toringo crabapple and autumn olive). One of the greatest threats to natural ecosystems on Long Island is the invasion of non-native plant species. Through the years several environmental organizations have been meeting with DEC officials to encourage the planting of only native species.

NYBG Historic Glasshouse Reopens After 4-year Restoration

The Enid A. Haupt Conservatory at the New York Botanical Garden, Bronx, opened to the public on May 3rd after a four-year, multi-million dollar restoration project. Inside the magnificent crystal palace palms soar into the 90-foot glass dome. The sago palm and the elephant fern, whose ancestors were here with the dinosaurs, thrive beside the palms. A fallen kapok limb has opened a sun-filled gap in the rain forest. The skywalk invites visitors to climb above the canopy. Ruggedly beautiful desert plants including the boojum tree and the tree aloe dwarf passers-by. For information call 718/ 817-8700.

Native Orchid Program

LIBS member **Sherman Wolfson** has been championing the cause for Long Island's wild orchids during the past year by presenting slide programs to several garden clubs and other organizations. Sherman updates his program continuously and has recently researched some of Charles Darwin's classic studies in orchid pollination.

New Members

The Long Island Botanical Society is pleased to welcome the following new members:

Laura Ahearn, Yale University, CT; **Abigail Barber** & **Noel Rowe**, East Hampton; **Dr. Dominick Basile**, Lehman College of CUNY; **Gregory Edinger**, Schoharie, NY; **Daniel Gilrein**, L.I. Hort. Research Lab, Riverhead; **Lenny Librizzi**, Bronx; **Russel Scheirer**, Hauppauge; **Laura Schwanof**, Port Jefferson Station; **Peter Stoutenburgh**, Peconic; **Guy Tudor**, Forest Hills.

Plant Sightings

Bob Laskowski reported that the very rare population of Pyxie (*Pyxidanthera barbulata*) that had been bulldozed two years ago in Islip, is making a very modest comeback. Several "wisps" of the plant were observed this spring.

Barbara Conolly and **Betty Lotowycz** recently located a healthy population of Red Campion (*Silene dioica*) at Cold Spring Harbor; this introduced European species is rare in New York.

While surveying his "block" for the Metropolitan Woody Flora project, **Ray Welch** located several different species of clubmoss occurring on the Ronkonkoma Moraine near Bald Hill, Selden: Hickey's Tree Club-moss (*Lycopodium hickeyi*), Southern Running-pine (*Diphasiastrum digitatum*, previously know as *Lycopodium digitatum* and *L. flabelliforme*), and *Diphasiastrum* x *habereri* (a hybrid between *D. digitatum* and *D. tristachyum*).

Aquatic Plants Workshop

by **Dr. Alfred E. Schuyler**
Associate Curator, Botany Department
Academy of Natural Sciences of Philadelphia

23 August 1997 (Saturday); 9 am to 5 or 6 pm

A morning talk and slide presentation with handouts on aquatic plants followed by lunch (outdoors, weather permitting) and a full afternoon in the field in the Riverhead/Calverton/Manorville area. Plan to wade.

Site of morning "classroom," will be somewhere in central Suffolk, to be announced.

Participation by reservation only, with preference given to LIBS members; space is limited so reserve early. Call **Skip Blanchard** at home evenings 516/421-5619, to reserve. Further details will be sent in late July to those who have reservations.

[Thanks to Bob Laskowski for keeping after us about having such a workshop, and to Chris Mangles for persuading Dr. Schuyler to come to Long Island.]

Field Trips

12 July (Saturday), 2:30pm to 4:30pm. Oak Brush Plains, Bishop Tract, Edgewood (near Pilgrim State Hospital). Leader: **Thomas Allen Stock**. Originally encompassing 60,000 acres, the Oak Brush Plains has been fractured into numerous small tracts totally less than 4,000 acres. For details including meeting location call Tom at 516/979-8323.

26 July (Saturday). Bashakill, Orange and Sullivan Counties, NY. (Joint trip with the Torrey Botanical Society). Leader: **Patrick Cooney**. Meet at 10 am at a pull-off just before the very small, flat bridge over the marshlands. Lying between the Shawangunk Mountains to the east and the Catskill Mountains to the west, these wetlands constitute the largest wetlands (5 miles long and less than a mile across) in the nearly 300 miles that separate New York City's Jamaica Bay and the Montezuma National Wildlife Refuge west of Syracuse. Directions: Take I-87 to exit 16 for US Route 17 west, passing the towns of Goshen and Middletown, and get off at Exit 113. Turn left (south) and drive 1.9 miles; left turn (east) on Haven Road. Drive a short distance to a pull-off on the left (north) side of the road. Bring lunch, ample beverage, insect repellent, and be prepared for wet walking. Patrick Cooney telephone: 914/478-1803.

16 August (Saturday). Ringwood/Skyland Manor, Bergen County, NJ. (Joint trip with the Torrey Botanical Society). Leader: **Patrick Cooney**. Take I-87 north, passing exit 15 for I-287 south to NJ, and get off at the next exit, 15A (US Route 17 north) and proceed to Sloatsburg; turn/bear right (there is a sign for Ringwood) onto Sterling Mine Road. Keep following the Ringwood signs continuing/bearing straight past an entrance for Sterling Forest and drive into New Jersey onto Mill Pond Road/Sloatsburg Road. Turn right (west) and proceed to the parking area ear the Maor House. There are entrance fees at both places. Bring lunch, ample beverage, insect repellent, and be prepared for wet walking. Patrick Cooney telephone: 914/478-1803.

LONG ISLAND BOTANICAL SOCIETY
Founded: 1986; Incorporated: 1989.

The Long Island Botanical Society is dedicated to the promotion of field botany and a greater understanding of the plants that grow wild on Long Island, New York.

President	Eric Lamont
Vice President	Skip Blanchard
Treasurer	Carol Johnston
Rec'rd Sec'y	Barbara Conolly
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Membership	Lois Lindberg
Conservation	John Turner
	Louise Harrison
Education	Mary Laura Lamont
	Thomas Allen Stock
Hospitality	Betty Lotowycz
Program	Skip Blanchard
	Steven Clemants
Editor	Eric Lamont

Membership

Membership is open to all, and we welcome new members. Annual dues are $10. For membership, make your check payable to LONG ISLAND BOTANICAL SOCIETY and mail to: Lois Lindberg, Membership Chairperson, 45 Sandy Hill Road, Oyster Bay, NY 11771-3111

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(see page 25 for details)

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LONG ISLAND BOTANICAL SOCIETY
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